Construction Barriers

Description

Construction barriers are fences, signs and other means used on a construction site to:

-confine equipment and personnel to the immediate construction area, thus minimizing the destruction of vegetation and reducing the potential for erosion and compaction.

-protect trees and their root zones against abrasion and soil compaction. It takes 20-30 years for newly planted trees to provide the benefits of mature trees.

-prevent unnecessary access to structural BMPs

-protect sensitive areas, such as water bodies and newly seeded areas

-restrict access of unauthorized persons and vehicles.

Other Terms Used to Describe

Fencing

Pollutants Controlled and Impacts

Confining construction activities to a specific site will limit the amount of soil exposed to wind and rain. Effective confinement may also eliminate unnecessary or excessive regrading or revegetation of slopes or raw areas.

Application

Land Use
Use at all construction areas where earth changes are taking place. Land uses include transportation (highway work), urban (drain work, private, commercial and industrial developments), and golf courses.

Soil/Topography/Climate
This practice can be used anywhere, but is particularly important on erodible soils and steep slopes.

When to Apply
Apply this practice prior to the start of construction and as needed throughout the duration of the project. Some barriers, such as vehicle deterrent barriers, may remain in place after project completion.

Where to Apply
Apply anywhere confinement or protection of persons, property or natural resources is needed.

Relationship With Other BMPs

Construction barriers are used to protect critical erosion areas (see Critical Area Stabilization) and to prevent unwanted access by vehicles, equipment and people. It is a component BMP used with many other soil erosion control practices.

Specifications

Planning Considerations:

1. Barriers used to separate the construction area from pedestrian thoroughfares, or used to alert personnel about the existence of hazardous conditions, should be stable and easily discernible.

2. Keep barriers outside the drip line of any trees which will remain intact during and after the construction project. (The drip line is the area from the trunk outward to the a point at which there is no longer any overhanging vegetation). Pounding barriers into the ground within the drip line of trees may cause root damage and weaken the tree. Follow specifications in the Tree Protection BMP.

3. Signs should *not* be nailed or otherwise posted on trees.

4. In large open areas susceptible to wind, consider protecting sprigged or seeded areas with fencing.

5. Barriers are particularly important around detention, retention, and Sediment Basins, and dams (including cofferdams). At a minimum, barriers in these areas should include signs which warn people of potential dangers. Fencing may also be needed, depending upon the slope steepness, outlet flows, depth of water, etc.

   Select appropriate structures for the intended use:

   Temporary structures:
   Temporary fences can be made out of snow fence or the orange plastic fencing which is commonly used in construction areas. Silt fences can also be used as temporary barriers where safety is not a consideration. (See the Filters BMP).

   Permanent structures:
   Permanent fences may be constructed of wood, plastic, synthetic fabric, plastic or any other appropriate material.

   Cyclone-type fences with secure gates and locks should be used around dangerous areas such deep basins.

   Snow fences can be used to prevent pedestrian access and to control wind erosion.

Construction Considerations:

1. Signs should be constructed out of durable materials and printed legibly.

2. Construct the fence following specifications for the type of fence being installed. Be sure all posts are sturdy, and all material is suitable for the intended use. One source of specifications for standard wire, suspension, electric and permanent power fences is the Soil Conservation Service Technical Guide, specifications for Fencing (#382).

3. All fences used as filters should be implemented following specifications in the Filters BMP.

After Construction:

1. Remove all temporary construction barriers. Before leaving the site, inspect all permanent barriers to ensure they are in good working order, and repair where necessary.

2. When removing tree protection barriers, check to make sure the tree is still in good health. Trees which are severely damaged should be removed and replaced. See the Tree Protection BMP for information on replacing trees, and techniques on how to properly repair damaged roots and limbs.

Maintenance

Barriers should be inspected and maintained on a regular basis. Damaged signs and fences should be repaired or replaced immediately.